Enchanting Gods and Dolphins: A Cross-Cultural Analysis of Uncanny Encounters

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Abstract   The main thrust of our research is to provide a cross-cultural definition of enchantment. Drawing on first-hand accounts of spirit possession in an Afro-Brazilian cult and on Dolphin encounters at sea, we compare the two settings to identify the common features in both people's experiences and the technologies of enchantment that make them possible. According to our findings, the main features of the experience of enchantment are: ontological uncertainty as to the entities involved and the experience itself; uncanny feelings; an attentional focus on inner bodily and mental states; dissociative and hypnoid states; and a shift in perceived agency. We define the technology of enchantment as an "in-between space of practice" (Belin 2002), neither totally material, nor totally subjective, which enables the merging of unusual bodily states with imagination and culturally prepared expectations. Such merging is possible only if the individual is immersed in a sensorily organized environment (sensescape), made up of distributed perceptual saliences, and if a relation based on trust and benevolence is achieved. [Dolphin encounter, Spirit possession, technology of enchantment, education of attention, ontological uncertainty, sensescape]

Résumé   Le principal objectif de cette recherche est de fournir une définition transculturelle de l'enchantement. Basée sur une ethnographie comparative des expériences de possession dans un culte afro-brésilien et des rencontres en mer avec des dauphins, cette étude souligne l'existence de traits communs entre ces deux situations à la fois dans les expériences des participants et dans les dispositifs qui rendent possible ces expériences, que nous qualifions d'enchantées. L'expérience d'enchantement est caractérisée par une incertitude ontologique quant aux entités impliquées et à l'expérience elle-même, des sensations et émotions non-ordinaires, une attention focalisée sur l'intériorité, des états dissociatifs et hypnoïdes et une perte du sentiment d'agentivité. Quant au dispositif d'enchantement, il correspond à un « espace intermédiaire de pratiques » (Belin 2002), ni tout-à-fait matériel, ni tout-à-fait subjectif, susceptible de relier l'imagination et les attentes du participant à son vécu corporel et émotionnel, à travers l'aménagement d'une série de saillances perceptuelles (un *paysage sensoriel*) et une qualité relationnelle marquée par la confiance et la bienveillance. [Rencontre Dauphin, transe de possession, dispositif d'enchantement, incertitude ontologique, éducation de l'attention, paysage sensoriel]

The moment I leant over the edge of that boat and put my hand on Simo's head, I was gone. Out of this world. In the water he never left my side. I felt he wanted to show me his world, that he was as isolated and alone as I was, that he needed me as much as I needed him. He seemed to say: "Don't worry. I'm with you." So much love, so much tenderness seemed to come from him.

I felt it was not the "approaching" (*aproximação*) of my mother Oxum[1]. It was the "approaching" of my father Orixalá[2]. . . It was something different . . . And it took me some time to realize what was happening in my own cult house, because I asked myself: 'Ave Maria, do I have Parkinson's disease?' Because my muscles started trembling . . . It was something different . . . And I think . . . I'm sure that it was the first time I'd felt something like that with Oxalá . . .

Despite obvious cultural and historical differences between the two self-reports above—the first one of an encounter with dolphins in the sea[3], the second one of a possession episode in an Afro-Brazilian cult[4,5]—we can, at first glance, notice the experiences they describe share at least one central feature: both describe the suspension of the ordinary way of experiencing the world (in the encounter with a spiritual entity or "extra-sensorial" communication with an animal) characterized by a revelation-like quality. Both are what we call experiences of "enchantment." Enchantment, as we understand it, is transformative in nature: experiencing it not only transforms the very perception of reality, but also the experiencer herself.

With this as a starting point and then drawing on a systematic comparison of our respective ethnographies, we aimed to identify the psychological (cognitive, emotional, and perceptual) features of such experiences. In doing so, not only did we realize that people experienced dolphin encounters in the sea, on the one hand, and possession by African gods in Brazilian Candomblé, on the other, in a very similar way, but also that the situations in which those experiences arose shared common traits. Our preferred concept to deal with these similarities was that of "technology of enchantment,"[6] which we define an in-between space of practice (Belin 2002), neither totally material, nor totally subjective, where the experience of enchantment is culturally cultivated and more likely to occur. In that sense, "an ethnography of experience does not equal an ethnography of the subject" (Belin 2002:180, our translation), meaning that "an ethnography of experience" must be able to embrace in its description the contexts where such experiences are produced and reproduced. Our aim is thus to develop an ethnography of subjective experience able to account for its social, situated, and embodied dimensions.

The analytical and methodological framework we propose here brings together ethnographic methods and a cognitively oriented anthropology (Bloch 2012). As we designed it, this framework is meant to enrich the ethnographers "toolbox" (Houseman 2003) with analytical concepts from both the social and the cognitive sciences. But it also has a theoretical thrust: to tackle, from a pragmatic perspective (Berthomé, Bonhomme, and Delaplace 2012), the question of embodiment (Csordas 1990) by investigating how experience takes place at the intersection of individual minds, with their particular dispositions and expectations, and situations, with their specific material and relational features.

There should be no misunderstanding about the purpose of this article: we do not make it our task either to disenchant the world or to demonstrate that Spirit possession and telepathic communication with dolphins are mere illusions. On the contrary, we take people's

experiences seriously and try to understand them as instances of ethnographically situated and cognitively constrained human experience.

Our article is divided in two main parts. In the first one, we present some of the core ethnographic data on which our comparison is based, while the second part is an attempt to uncover the common denominator and differences between the experiences and technologies of enchantment in the two cases. We start with the Dolphin Experience.

ETHNOGRAPHIES

Enchanting Dolphins at Sea (Or "the Dolphin Encounter")

Trained as a clinical psychologist, I (Véronique Servais) was introduced to the "magical world of dolphins" via an experimental study about dolphins' therapeutic effects on autistic children (Servais 1999a, 1999b). In this context, people repeatedly came to me with extraordinary stories about dolphins, their power to heal, their benevolence towards human beings, and their telepathic abilities. Most of them wanted to convince me to abandon my "scientific" approach of the subject and experience my own magical encounter with dolphins. Reluctant at first, I finally joined the "wonderful dolphin" circles, attending conferences and workshops and developing relationships with dolphin lovers in Australia, Great Britain, Belgium, France, and the United States. This is how I gathered testimonies of dolphin encounters, either first hand or published in various associations' newsletters. I traveled to several places (Nuweba in Egypt, Byron Bay in Australia, and Cap Sizun in Brittany) where friendly dolphins were spontaneously interacting with dolphin lovers. This discontinuous fieldwork lasted for more than ten years (1992–2005). My first attempt to account for these encounters with dolphins drew solely on communication theories (Servais 2005) and could not account for many aspects of the enchanted experience.

The encounter between humans and dolphins sometimes creates what witnesses call an "interspecies connection," with the participant experiencing the full and immediate communication with the animal as a revelation: the dolphin addresses the human being and the person understands the dolphin. The encounter comes with extremely intense emotions, a loss of the limits of the self as well as an alteration of body, time, and space perceptions.

How do people come to live such overwhelming experiences? Despite their indisputably spontaneous nature, our central hypothesis is that enchantment happens via a space of practices culturally organized around three stages. In the first stage, people learn *about* enchantment by having their religious or spiritual imagination unlocked. During this first stage, people's attention is also educated by experts' discourse and behavior (Ingold 2001; Luhrmann 2012). The second stage is the experiencing of enchantment itself. From now on, candidates to enchantment learn *from* the experience itself, considered here in its bodily and emotional dimensions. The third stage corresponds to the social evaluation and narrative construction of the experience. Each stage can be understood as one moment in the process of becoming enchanted. Of course, such a sequence should not be understood as

totally rigid or as exclusively linear. But dividing it into three stages will help us distinguish its main components and see how they relate to each other in the context of individual trajectories.

Stage 1: Unlocking the Imagination and Educating the Attention in the Dolphin Encounter

Unlocking the imagination and educating the attention occurs when the novice first starts to engage with "the world of magical dolphins." "The world of magical dolphins" is made up of the blogs, websites, international meetings or conferences, psychotherapy or self-improvement workshops, meetings, books, articles, and newsletters that, although they disagree on quite a few topics, promote a certain image of the dolphin.[7] Since modern thinking sees nonhuman animals as differing not in degree but in kind from human beings (see particularly de Fontenay 1998; Derrida and Roudinesco 2001; Descola 2002), the model also assumes that "real" communication with animals is impossible: animal minds are impenetrable to human minds. But when the novice is introduced to the "world of magical dolphins," she discovers that this might not apply to the dolphins. Reading numerous stories about them, she discovers another picture of the dolphins and begins to have doubts about their identity. Who are they *really*? What if they were not "mere" animals but conscious and spiritual creatures? This doubt begins to unlock the novice's imagination and opens up the way for understanding the "world of magical dolphins" from a new perspective.

Unlocking the imagination and apprehending new ontologies. The stories circulating in the world of magical dolphins weave closely together bits of (Greek, Native American, Australian) mythology, first-hand accounts, ancient or recent legends, pieces of scientific knowledge, dreams, ecologic utopias, or moral principles. The expression of mythological references is rather evocative and fragmented, similar to what Romanist and Hellenist John Scheid and Jesper Svenbro (2001) call myth "nuggets" always likely to generate new interpretations. According to this view, the myth is better grasped as "a simple "proposition" generating stories, images, rituals—and exegesis" (Scheid and Svenbro 2001:4), leading the authors to qualify such mythology as "generative" rather than "narrative." Put together, these fragments draw a surprising portrait of the dolphin. "In ancient legends, dolphins own the keys to the primordial language. They open the doors of a different reality, that of dreams."[8] As "highly intelligent, peaceful, loving, conscious beings and conscious breathers with a brain as big as ours,"[9] they could be our spiritual guides: "Dolphins and whales have proven to be experts in communication and now it is time for us to learn their skills."[10] Narratives about dolphins who rescue shipwrecked people abound and are interpreted as growing evidence that "since the beginning of time, [the dolphin] has proven its unique and disinterested curiosity, solidarity and friendship with man."[11] But most of all, dolphins are healers: they are known to help disabled or autistic children, depressed or anxious adults, to such an extent that they are endowed with a mysterious "healing power." Often, the stories sound like miracles: "I feel I must share the most exhilarating experience of my life," writes a mother in the *Dolphin* magazine[12] after she took her disabled child to swim with

the dolphins in Eilat. "Since he's been back at his "Care Concern" home in Wales, he's had his prescribed drugs reduced, and apparently he's remarkably calm and happy. The staff is amazed by the difference in his behavior." Reading such a story, one is led to ponder: What exactly happened there? How come swimming with dolphins can have this kind of miraculous effect?

Dolphins are also reputed to read our thoughts:

> In time, I became convinced that the dolphins can read our minds. When we have images in our minds, they can see them," I was told by Richard O'Barry, former trainer of the 6 dolphins that featured in the "Flipper" TV show. "I remember when I was training Cathy. Sometimes I was wondering: "What can I do to have her do this or that . . . ?" And then I looked at her . . . and she was doing exactly that! I think that they use their sonar to see our mental images.[13]

They can also see straight into us: "They can see if you are pregnant, what you ate, if you are anxious or happy inside. Dolphins immediately see who you are and they respond to it," a participant told me during an International Dolphin and Whales Conference (IDWC).[14] Hence the importance of the gaze: seeing yourself reflected in the eyes of a dolphin means discovering your true nature. In the eye of a dolphin, "you see yourself so deeply that you discover the benevolence of your true nature, your freedom, your strength, and the whole potential that you hold and were never aware of."[15]

This kind of "discovery" can be the first step in a process of self-transformation. As they explore the world of magic dolphins, the novices also learn that communication with the dolphins is direct (from mind to mind) and "spiritual in nature."[16] Yet, despite the dolphins' kindness towards us, we treat them badly. This is an important theme in the world of magical dolphins: "The dolphins love us and in exchange for that we kill them and lock them up," writer Hugo Verlomme concluded bitterly.[17] Underlying all dolphin encounters, there is a shade of guilt. This ascribes the encounters in an asymmetric relation that essentially translates as: "We humans are guilty. We have forgotten the real values and we come to learn from you."

Educating the attention.   In addition to unlocking the imagination and questioning the onto-logical status of the dolphins, these stories focus repeatedly on some important points. The first one is the intentionality of the dolphin: "a dolphin never does anything by chance," an Australian seaman told me. "If he comes to you, it is because he wants to." Every behavior of the dolphin is thought to be deliberate and intentional. Other important focus points include the gaze, the kindness and benevolence of the dolphins, their wisdom or knowledge, and the sonar that allows them "to see inside us." These beliefs will serve as guiding points for the attention and perception during the encounter. Moreover, preparing the encounter commonly involves meditation or relaxation practices while watching dolphin videos or listening to dolphin sounds. In the Nambucca Heads conference, a speaker showed us pictures of friendly dolphins and asked us to think about a painful experience

and then offer it to the kindness of the dolphin. We were encouraged to "let the dolphin touch our heart." Opening our hearts was meant to prepare us for the next-day encounter with wild dolphins. At the IDWC in Brussels in 1996, the audience was asked to mentally become a dolphin by constructing a mental image of ourselves with flippers instead of arms and to experience the dolphin's kinesthesia. This attentional learning process therefore consists in letting go of control and keeping oneself ready for anything that could happen (no conscious purpose), offering one's weaknesses to the kindness of the dolphin (confidence), and gaining awareness of the animal's kinesthesia ("becoming dolphin"). Later on, this will make it possible for body, emotional, and attentional attunement or synchronization. Note that all these elements introduce a deep rupture in the modern interpretative frameworks of animal behavior, contributing to a full reframing of the relation to animals; they institute both new relational modes and new identities that involve dolphins addressing people.

In the next section, our aim is to describe more fully the experience of enchantment as such and the contextual conditions favorable for its occurrence.

Stage 2: The Dolphin Encounter as a Situated Experience

The Dolphin experience, seen from the outside, does not have any distinguishing marks. It is not perceivable by the people around; instead, it is lived in the privacy and affective intensity of the connection. It follows that the novices cannot attune their perception and educate their attention based on observation of other people's experiences and live feedback during the enchanted encounters; it also follows from here that the novice's only interpretative resources, once in the water with the dolphins, consist of her own communication system, on the one hand, and open expectations, on the other. For instance, novices know that they can expect extraordinary communication modes, but they do not know how these will materialize. Once in the water, they are alone to face the dolphins and, despite the molding of the imagination and the education of the attention described above, there remains still a great degree of indeterminacy, all the more so as everything also depends on what the dolphin(s) is (are) going to do.

The onset of the Dolphin experience is generally sudden: "Machiste came towards me, he glanced at me and then he offered me his flipper. I understood this was an invitation to follow him."[18] The Dolphin experience means to be instantly transported to an unknown world, breaking away from everyday experience, but where, surprisingly, one doesn't feel a stranger at all.

> There I was with dolphins above me, beneath me and all around me. [...] I was so exhilarated I felt I could leap as high as the Dusky dolphins, who are renowned for their acrobatics, and I think perhaps I even tried. I felt like a child in a snowstorm of sweets, with dolphins as far as I could see. [...] I felt they were inviting me down and away with them, and maybe, had I not been in danger of losing all feeling because of the cold, I might have been tempted to follow them."[19]

The Dolphin experience is associated with strong and positive emotions: love, joy, and euphoria. "The experience was one of mutual and unconditional love and trust which perhaps only another intelligent species like the dolphin can provide."[20] Emerging from the water after a long swim with the dolphin Oline, a French tourist cried: "It's fantastic! There are no words to explain it. I feel great, excellent!"[21]

> Without even thinking I was paddling out to them.... What happened in the next 30 minutes brought me to tears. As they reached me, I was struck by their size and blackness, overwhelmed by their skill in the water.... The air was alive with activity and love. Two smaller dolphins swam slowly towards me, stopped for what seemed like 10 minutes to check me out, and then disappeared at breakneck speed.[22]

A dolphin encounter is usually a life-changing experience. It also means to go through a transformation. When Bill, a depressed man met the dolphin Simo, he suddenly "blossomed": "we watched the man change from being apprehensive, scared and withdrawn to a smiling, joyous person who became totally involved with the dolphin and forgot everyone and everything around him." As Bill said, Simo became instantly his intimate friend.

Apart from love and intense emotions, many accounts of dolphin encounters insist on the dolphin's gaze. "A dolphin looks you into the eyes," an attendant at the 2nd IDWC in Nambucca Heads solemnly told me. According to Kim Rosen, a psychotherapist at this same conference, "Eye contact with wild dolphins is magical." The gaze of the dolphin is really startling for the novice. "Almost immediately Fungie swam close to me and gave me a look that has stayed with me ever since—a look of great intensity, knowing, and acceptance . . . It was that first look of unqualified acceptance that will stay with me forever."[23] The Dolphin experience also means to establish such an intimate connection with the animal and its world that communication becomes clear and direct: every act of the dolphin makes immediate and obvious sense. People also report a special kind of attention: a much focused attention on both the dolphin and their own feelings or thoughts, as if the dolphin's moves resonated with their own thoughts. One evening, for example, Helen Kay was walking on the beach with her dog, Jess. Suddenly, a pod of dolphins appeared. Then they came closer, and Helen felt "an instinctive urge to try to communicate with these lovely creatures." She then began singing "Amazing Grace" and

> they came in as far as they could in the white water about 20 feet away . . . I started walking back up the beach and they all came with me, swimming quietly now, but still surfing into the white water at times. We went about 500 meters like that. I was getting bored with "Amazing Grace" by now and I'm sure they were too, so I tried something different, but it wasn't right—it just did not sound right. Perhaps it was just a coincidence, but at this point communication stopped. It was a strange thing to know that it had, even though they were still there. Shortly afterwards, they were gone, quietly, with no more leaping . . . I was so euphoric about the whole thing—I don't know how long they were with me. At least half an hour; probably longer.[24]

The researcher Wake Doak had a similar experience while he was looking at a group of dolphins from a cliff: the dolphins leapt and swam in precise synchrony with his own thoughts.

Stage 3: Social Assessment of the Dolphin Encounter

Up to this stage, the novices are certain that they have lived an extraordinary experience: whether the experience belonged to the category of religious or spiritual imagination, they felt it in their bodies and souls. They are the privileged witnesses of a different reality, a totality that enlightened, uplifted, and overwhelmed them. What is left to figure out is whether these experiences were *legitimate* enchanted communication. This is where the third stage of our technology comes into play, i.e., its social assessment. This stage is crucial as it validates (or invalidates) the experience while offering the novices feedback on what they have experienced.

Having experienced a Dolphin encounter, some witnesses wish to talk about it. Sharing one's experience is an opportunity to confirm that it was a genuine Dolphin encounter and not, for instance, a mere anthropomorphic illusion. There is no actual social sanctioning given that, in the world of magical dolphins, there is no authority to rule on the authenticity of the experience. Making one's experience public means, on the one hand, putting it in words and, on the other hand, exposing oneself to the eyes of the noninitiated. Now, the dolphin experience is inherently impossible to explain. Why would a dolphin approach me with kindness? How to explain what happened to me? How to account for the unbelievable feelings I have experienced? This is where the supernatural crops up, as only supernatural explanations ("the magic," "the power," the "supernatural" essence of dolphins, etc.) seem to account for what happened.[25]

For people already in the New Age environment, it is comfortable to resort to a magic-related explanation. However, ordinary people, whose accounts show a degree of willingness to rationalize, find that explanation much more difficult. Similar to witnesses of Marian apparitions (cf. Claverie 1990), they mobilize all possible arguments, including scientific ones, to make their experiences acceptable. Hence the already mentioned weave of legends, testimonies, scientific facts, and various stories that stands for the world of enchanted dolphins. We also notice some degree of proselytism with those who have become initiated. They know from experience that the dolphins are conscious and intentional beings and not "mere animals." However, it is no easy task to have such beliefs accepted by the naturalist ontology of our societies. There is a high risk of becoming marginalized and discredited. Hence the use of metaphors and expressions such as "it seemed to me," "I believed," "seemingly," etc. when speaking outside organizations which are openly New Age and, consequently, embrace and claim a different ontology. This also explains the experience of enchantment retaining an uncanny flavor and the stories continuing to unfold indeterminately—which fosters mythological profusion, and, to some degree, ontological uncertainty about who the dolphins *really* are and what *exactly* people have experienced during the Dolphin encounter.

Turning now to our second case study, we will follow the same three stages of the technology of enchantment, but this time in the context of the Xangô, an Afro-Brazilian possession cult.[26]

Enchanting Gods in the Xangô Cult

In the Xangô cult,[27] enchantment takes the form of possession trance by African deities called *orixás*. Highly valued by the members of the cult, possession is described as particularly "gratifying" (*gratificante*) both on a personal and social level. On the personal level, possession is the sign of both relational and affective proximity of the *orixá* to his "son" or "daughter,"[28] being often accompanied by an intimate feeling of protection and increased self-confidence. On the social level, possession is above all a sign of the individual's being elected by her god, which grants her a degree of prestige within the religious community.

Each Xangô initiate is assigned at least two *orixás* and has to make an annual sacrifice to each of them. Although all initiates are potential candidates, possession is neither a prerequisite nor a necessary consequence of initiation, although the "birth" of the *orixá* can and does happen as part of this event.[29] Possession commonly occurs during public celebrations in the honor of *orixás* (*toques*) but also during private ceremonies such as sacrifices (*obrigação*) and "leaf" baths (*amasi*[30]). Given that each temple includes from a few dozens to several hundreds of individuals and that the initiates tend to participate in both public celebrations and private ceremonies in affiliated temples, the opportunities to witness and, potentially, experience possession are not few. But in all cases, the occurrence of possession remains uncertain as it depends, according to Xangô members, on the *orixá*'s willingness, as asserted by a mother-of-saint:

> Nobody knows [when the *orixá* will come]! You can wait for decades and then it [possession] happens all of a sudden! The young girl we "took out of the [initiation] room" last May had never 'received' anything, never! And Oxum 'came' during her *obrigação* [animal sacrifice] . . . *Orixá* is like that: *Orixá* is unforeseeable . . . He might appear today and then it will last months before it comes back! (Zite, cult chief)

Nonetheless, possession remains a ritual practice aiming to create an intimate relation between the world of the gods and the world of humans (Halloy, in press; Opipari 2004). Possession occurrences are common in the Xangô cult, and they are highly regulated. Indeed, the context of the possession occurrence plays a decisive role in the religious experts' decision to encourage or, on the contrary, to suppress the god's "manifestation." This is particularly the case of possession by *eguns*, family ancestors, which is formally proscribed by the Xangô followers because it is considered as a direct contact with death, or of possessions outside the ritual sphere.

But in any case, it appears that, most of the times, learning possession starts outside the ritual sphere *stricto sensu* by a diffuse kind of learning (Goldman 2007; Halloy 2010). This diffuse learning is very similar to the one described for candidates of the Dolphin Experience, and consists in feeding the novice's imagination with mythological references and new

ontologies, as well as educating her attention (Ingold 2001; Luhrman 2012) to this singular form of enchantment.

Stage 1: Unlocking the Imagination and Educating the Attention in the Xangô cult

Unlocking the imagination and apprehending new ontologies. "Enchantment," in the spiritual sense Xangô members assign to it, is part of the ontological background of the Xangô cult. According to Márcio Goldman, the Candomblé ontology can be summarized as "a kind of monism that postulates the existence of a single force" (2007:110). This single force or vital principle, called *axé*, is the main component of each form of being and "Candomblé's ultimate value term" (Wafer 1991:18). For the Xangô, the term *axé* refers both to an immaterial element, often understood as "life itself," *the axé*, and to certain objects and substances endowed with *axé*, *the axés*. According to this "monist" view, the *orixás* themselves but also plants, many objects and substances, animals, and humans are all, without exception, more or less condensed emanations of this force. Possession is undoubtedly the most visible expression of both this force's capacity for ritual modulation and the flexibility and permeability of the borders connecting all beings and things that make up this ontological system.

According to the Xangô members themselves, *orixás* are "enchanted" creatures in at least two quite different senses. First, enchantment is understood as an ontological and transformative process. Spiritual entities like *orixás* are enchanted because they did not go through the natural process of death as *eguns* or other spirits did:

> An *orixá* is something like . . . something like a fairy! But a fairy is not something enchanted, who appears like this, all of a sudden . . . *Orixás* have another world, a special world, which belongs to them: An enchantment of gods! *Orixás* and gods are the same thing. (Lucínha, cult chief)

In this first sense, *orixás* are conceived of as a special kind of spiritual being, belonging to the world of the divine, defined as different in nature from humans (*matérias*) and dead people (*eguns*).

Enchantment might also be understood by Xangô members as the transformation of a human being into an element of nature:

> And so, what is an *orixá*? It is an enchanted being . . . He was a person, he enchanted himself and he became an element, a part of an element of nature. (Yguaracy, cult chief)

It is clear from both quotes above that *orixás* are hard to describe in their essence: they are divine creatures, distinct from spirits, and part of the natural elements.

The religious imagination of Xangô members is also fed by a whole system of mythological references dealing with the identity, the personality, and the relationships among *orixás* and between *orixás* and humans. Often, the interpretation of everyday and ritual events is based

on such references. Further, certain physical and psychological features of an individual will be attributed to her *orixá*, or even a particular substance or artifact will be deemed appropriate for use in an offering or for inclusion in the shrine (*altar*[31]) of an *orixá* based on these mythological references.

One of the remarkable features of contemporary Xangô myths is that they are rarely elaborate accounts, being faithful to the generative mythology model as described by Scheid and Svenbro (2001). Further, the Xangô myth fragments are periodically enriched with the interpretation of dreams and many biographical stories featuring the *orixás* (Segato 1995). Similar to the myth fragments themselves, these dreams and stories do not only feed the god-related imaginary but also provide daily updates about the relationships of the *orixás* and their "children." This translates as a permanent adjustment between the individual path of each cult participant, on the one hand, and the mythological references that can be used to make sense of the individual history and trajectory, on the other.

Educating attention.   However, it is not enough to get to know the gods. A second kind of learning proves just as essential in organizing expectations and dispositions for possession. This is the "education of attention" (Ingold 2001) which teaches novices how to refine their perception of possession episodes and how to perceive and recognize the relevant clues of this form of enchantment in oneself or in the other. The education of attention develops for the most part in situations of possession. This type of learning is more focused on the perception of behavior and emotional clues that guide the assessment of the quality and intensity of the possession. Importantly, this complex skill cannot rely on the *orixás*' behavior alone. It is based, first, on the observation of the expert's emotional responses and attitudes *towards the possessed*, enabling one to build their own (culturally) appropriate response to possession.[32] This process proves the more valuable for learning as possession is known to Xangô members to be a particularly contagious phenomenon: each observer can become possessed. Being aware of the early warning signs of possession, the individual will be able to adjust her own behavior to both the intensity and quality of the experience and the attitude of the initiator—and of experienced initiates—towards her during the possession episode (Halloy 2012).

Let's turn now to the experience of enchantment itself and the way it is described by Xangô members.

Stage 2: Possession as a Situated Experience in the Xangô Cult

Enchantment as an experience does not arrive "out of the blue." As we suggest, it is prefigured through the feeding of the candidates' imagination and the education of their attention. But the crucial step, in our view, consists in literally embodying such imaginary: enchantment is first of all a culturally informed bodily experience. Self-reports of possession episodes by Xangô members seem to accommodate this idea:

> I felt an emotion, something like that, an emotion that made me feel like crying . . . But I was not really 'irradiated' . . . I did not really feel the *orixá*. When I did come to feel [the *orixá*] it was in Paulo's temple (*terreiro*), in my grandfather's house. It was Oxum's celebration. They started to sing for Yansã[33] and I felt such lightness [*leveza*], and that's it. Then I fainted [lit. "I lost my senses"] . . . But I was not 'manifested'. I felt as if I was fainting . . . I felt my blood as if my blood pressure was going up or down . . . I just know that I felt my body fainting . . . (Maria-Helena, cult leader)

As we can see,[34] possession in the Xangô cult is bodily grounded in out-of-the-ordinary feelings and sensations. Most accounts of the recurring emotional reactions and proprioceptive sensations associated to the "action" of the *orixás* on the body of their "children" speak of long and strong shivers (*arrepios muito fortes*), the blood pressure "going up and down," "the need to cry without reason," a sudden change in heart rate and breathing rate, excessive sweating and trembling out of control, dizziness, tingling in the arms and legs, troubles seeing and hearing, or even losing consciousness to a smaller or larger extent. The focus on sensations and the "uncanniness" of emotional reactions and sensations associated with the possession experience are, in our view, integral to the "revelation-like" quality of enchantment. In the case of religious possession, "uncanniness" can be both the result of an unusual persistence or intensity of ordinary sensations, an unusual combination of diffuse and changing sensations, and of the occurrence of strange and/or unknown bodily reactions (Halloy 2012, in press).[35]

Uncanny feelings, however, do not come alone and are most often accompanied by a specific imaginary. To illustrate this central process, we opted for one of the authors' description of his personal experience of possession. In our view, such self-report is potentially insightful and worthwhile for two reasons. One, first-person reports, from inside the head and body of the possessed, are still rare in anthropological literature. Second, and more importantly, the possession episode being described here happened after one year of immersion in the cult and was authenticated by Xangô experts themselves as a true and full "manifestation." So we decided to take it as a valid description of the kind of cognitive and bodily processes at work during possession episodes. It happened at the temple (*terreiro*) of Lucínha, a well-known priestess of the Xangô, in July 2003.

> I had been kneeling in front of my *orixá*'s altar for approximately half an hour. Blood from many sacrificial animals was poured on the iron pieces making up the altar of my *orixá*, and then on my head and shoulders. Júnior—my initiator—started with Ode's repertoire of songs.[36] At some point, I cannot clearly discern when, during Ode's songs, the surrounding scene started to vanish. I just know that Júnior was calling upon the name of my *orixá* very close to my head. Now it was as if each of his words was touching me inside my belly, as if each sound produced by his mouth was instantaneously translated into gut sensations. I know I began to swing my torso back and forth. I cannot say if this first movement was intentional or not: I just know it started and it felt good. It was like an overdose of energy, the sensation of a body being too small to contain such a force invading me from nowhere. I was scared and elated at the same time. I felt like shouting out but I did not dare to do it. My initiator—I could still identify him—helped me get up. From that moment on, memories remain extremely vague as if external forms and

sounds lost their recognizable shape. I was not dancing: I was danced . . . And I was not entirely myself anymore . . . Better: I was partly someone else. And this sensation was intensified by a multitude of mental images juxtaposed to the external world: I was in the middle of a hunt, extremely light and agile, totally determined to fight the fiercest of beasts! And I remember an enormous animal, probably a wild boar, lying on the floor at my feet, streaked with blood. What struck me the most was its smell[37] . . . Every image flashed before my eyes, uncontrollable, and my body was moving as if by magic . . . A sensation of total freedom. I didn't know who was there, which music, how I was moving . . . My mind was trapped in liberty, more than an awakening dream: an embodied dream! In my muscles, my bones, my guts, my brain! I was in Ode's hands, or better I was his body: invincible!

A few minutes later, the songs stopped. I fainted, my body fell to the ground and I burst into tears. It took several minutes for my breathing to calm down. I felt apathetic and euphoric. Apathetic because I felt bodily and mentally worn-out. Euphoric because I knew I had just lived something extraordinary . . .

Stage 3: Social Assessment of Possession in the Xangô Cult

Religious possession in a cult such as Xangô is a public phenomenon and, as we saw, one likely to be experienced by many individuals. Further, religious specialists are recognized for their expert knowledge about the phenomenon, whether this means creating beautiful *orixás* or taking to successful completion the ceremonies where the *orixás* express themselves through possession. In this context, the novice has access to several sources likely to provide information as to the reality and/or legitimacy of the experience of possession.

To start with, the novice is free to participate in informal conversations during which the religious specialists and experienced initiates do not refrain from commenting on the *orixás*' performance. Often tinged with irony or even a dose of sarcasm aimed at *orixá* behaviors deemed atypical or molded to different "bodily hexes[38]" (Bourdieu 1980), these comments are a valuable source of information for the novices, helping them to internalize and create their expectations, criteria, and conventions as to the normative and aesthetic aspects of *orixá* behavior.

Another valuable source of information is social referencing. We have already mentioned that the novice has a lot to learn about possession by observing the religious experts' attitudes and emotional reactions toward the possessed. This type of information is so valuable because it provides a view of possession *in situ* and, more particularly, of the emotional regulation it requires: What sensations and emotions correspond to the *orixá's* "approaching" ("*aproximação*")? What is the appropriate reaction? What is the proper behavior based on the intensity of symptoms (as witnessed in the possessed)? For the novice, unsuccessful possession episodes or problematic ones (*orixá* out of control, unusual behavior of the possessed, etc.) prove particularly instructive.

First-person testimonies are a third source of details on possession that novices can use when assessing their own possession experiences. The circulation of these testimonies is

often limited to the narrow circle of the possessed. There are many reasons why they are so private. First, many possessed find it difficult to put such an experience into words given the high degree of uncaninness they have experienced.[39] All initiates agree on this point: the only way to access the experience of possession is to actually live it "in your flesh and soul." A second reason is that the possessed is not supposed to remember the possession episode. While amnesia can be a consequence of the altered states of consciousness of the possessed, it can also result from self-censorship inasmuch as sharing the memory of the possession episode can lead to the questioning of its authenticity and to the suspicion that the possessed has instrumentalized the experience. One more reason for remaining silent about the possession experience was nicely described to me as "a secret to keep for yourself": possession as an intimate experience that you wish to keep for yourself and whose expression into words and social dissemination would risk tarnishing its brightness and uniqueness.

In substance, the novices will try to power self-evaluation and the regulation of their own possession with the discourses and behaviors of experienced possessed persons and religious specialists. The novices know that each episode of possession, including their own, is exposed to social sanctioning: either the initiator can interfere directly during the possession[40] or the episode can be accredited or discredited—particularly through charges of "false trance" (èkê)—during discussions or feedback on the gods' performance.

From these brief ethnographic accounts, we now turn to an analysis of how various aspects of the experiences described above might be considered as recurrent features of the experience of enchantment and also how the latter is generated through specific cultural "technologies of enchantment."

ENCHANTING GODS AND DOLPHINS: COMMON TRAITS AND CULTURAL VARIATIONS

By systematically comparing the dolphin experience with religious possession in the Xangô cult, we observed remarkable similarities between the experiences of enchantment as such but also between the cultural technologies that enable their occurrence. We will first address the similarities, while the last part of the discussion will be dedicated to the differences between the two case studies.

Enchantment as Experience: Common Traits

Although lived in the privacy and intimacy of the body, both experiences of enchantment are intrinsically social. They are social inasmuch as they are lived out by a community—whether institutionalized, such as the Xangô cult, or more "rhizomatic,"[41] such as the dolphin community which contributes to the creation and transmission of both the experience and the technology itself.[42] Furthermore, the social nature of the two experiences becomes apparent in the way they *reveal* the possibility of a relationship with a spiritual being or an animal, a relationship that opens up the way for a new understanding of the world and the beings

that live in it. In both religious possession and the Dolphin experience, this "revelation-like" experience is characterized by the suspension of an ordinary way of experiencing the world: from then on, the individual participates in a totality that enlightens, uplifts, and overwhelms her. The experience of enchantment is thus social in a third and more subtle way, as it corresponds to the coming into being of a new collective reality—*orixás* as embodied creatures, dolphins as telepaths or spiritual guides—which is literally inscribed in a bodily experience made up of specific cognitive and bodily processes.

At the individual cognitive level, we observe in both cases a work of imagination paradoxical in nature. The working of the imagination is paradoxical because it calls up rich evocative meanings or mental imagery, while at the same time remaining obscure about what is actually occurring. This is the case with regard to two aspects of the experience. First, when candidates of possession or the Dolphin experience refer to the ambiguous nature of the entities involved in the enchanting encounters, dolphins are conceptualized not only (and sometimes not) as animals but also as rescuers, healers, elevated spiritual beings, or even E.T.-like creatures and *orixás*—as "enchanted creatures" (*encantados*) distinct from dead spirits, likened to fairies and parts of natural elements. Another form of opacity is relative to the experience of enchantment itself. As Mattijs van de Port nicely puts it: "the argumentative power of possession, clairvoyance and other miraculous phenomena lies in the combination of their being both overwhelmingly real *and* utterly inexplicable" (2011:207). In other words, symbolic closure remains hard to reach when Xangô members or people involved in the Dolphin experience try to grasp what the entities involved and the religious experiences they trigger *really* are (van de Port 2011). Even if they may become more familiar with the phenomenon, the latter never loses its mystery and the resulting fascination it exerts on them. Such ontological uncertainty is, in our view, a constitutive feature of enchantment as an experience.

Second, the experience of enchantment is bodily grounded in uncanny (but also gratify-ing) feelings and sensations. During Dolphin encounters, individuals are overwhelmed by particularly intense feelings of joy, tenderness, inner peace, and communion, even "infi-nite love." During possession, the gods express themselves through a series of physiological changes which baffle the possessed with their intensity, simultaneity, or uncaniness. These out-of-the-ordinary bodily, mental, and emotional experiences appear to be constitutive of the experience of enchantment in a two-fold manner: they reinforce its reality through a particularly intense lived bodily experience, while at the same time confirming its ontological uncertainty. Both the Xangô possessed and those who experienced the Dolphin encounter argue that the only way to access such experiences is to live them yourself, "in your flesh and soul." Every attempt to describe it intellectually is doomed to failure.

A third feature of the experience of enchantment in both cases is a specific attentional bias characterized by a focus on the "inside" of the mind and body. This is done either through interoception—when the perception is focused on body sensations (skin, muscles, articulations, guts), as in the case of Xangô members being "irradiated" (see Maria-Helena's and Yguaraçy's self-reports), but it can also be realized through absorption—when perception

is better attuned to the thoughts and mental states, and vice versa, when thoughts are attuned to the perception of the dolphin's body movements, as in the case of a direct communication from one consciousness to another described by people in the Dolphin Experience.

Enchantment, in both cases, might also involve trance-like states such as dissociative or hypnotic states. In the case of possession, (real) amnesia of possession episodes, even if partial, seems to be frequent and people facing the early signs of possession, in most cases, become mere observers of what is happening in and with their own body. In dolphin encounters, people lose time and space perception, they enter "lived dreams" and hear their own thoughts as if dolphins were talking to them.

Last but not least, a trait shared by both types of experiences of enchantment is the loss of control, partial or total, over one's own actions and thoughts. Enchanted people report a shift in their perceived agency in the sense that they feel their own bodies and experience their own thoughts as if they were monitored by someone or something else. In other words, they no longer feel as though they are masters of their minds and bodies but are instead mere elements of an overwhelming situation. In the Dolphin experience, it is the dolphin who starts to talk to people, who initiates the direct communication "from mind to mind." In the case of the Xangô cult, possession depends on the *orixás'* willingness to "act upon" the possessed, i.e., literally taking control of her body and mind.

In short, our analysis suggests that both types of experiences share at least five common traits: a prolific imagination marked by ontological uncertainty; uncanny feelings or emotions; attentional focus on inner bodily and mental states; trance-like states; and a shift in perceived agency from active to passive: the enchanted person is not guided by conscious intention anymore but is channeled by the situation itself. We believe, as we will try to show now, that shared features can also be identified within the technology that makes the experience of enchantment possible.

Enchantment as Technology: Common Traits

A technology of enchantment, as we understand it, is an "in-between space of practice" (Belin 2002), neither totally material, nor totally subjective, within which the connection between inner life (imagination, expectations, and dispositions[43]) and outer situation (a social and material environment) is made possible. In other words, technologies of enchantment are cultural tools that relate inner life to outer situations in a specific way. In our view, technologies of enchantment in the Xangô cult and the Dolphin experience share at least four features that most commonly are responsible for the realization of these connections.[44]

The first such feature corresponds to what Emmanuel Belin (2002:226) has nicely called "a promise of surprise," as the experience of enchantment is neither automatic, nor purely contingent. In the Dolphin experience, people are never sure it will happen, and they don't know how the magical connection with dolphins will materialize. The same can be said

about possession: as clearly stated by the old priestess quoted above, you never know *when* possession will occur because it doesn't depend on the person's intentions or desires but rather on the *orixá*'s willingness. But at the same time, Xangô members know possession is not totally unpredictable. They know that even if religious experts cannot fully control the occurrence of possession episodes, some of them are better at "calling upon" the *orixá*; they also know that possession is more frequent in some circumstances (like an initiation) and some rituals (like the *amasí*, the animal sacrifice or public ceremonies). In both cases, however, the enchantment episode, due to its total or partial unpredictability, remains a surprising and unique event when it happens.

A second feature of technologies of enchantment is their relational quality. In both case studies, we find "trust" and "benevolence" (*bienveillance*), not as moral attitudes, but rather as relational characteristics of the social environment. As Belin puts it: "Benevolence conveys the feeling of grace (. . .) It authorizes a temporary suspension of the frontier between the inside and the outside" (2002:181), while trust is "the possibility of not knowing, to renounce to control" (2002:247), two psychological prerequisites of enchantment. In the Xangô cult, a candidate to possession must indeed be able to trust her initiators as well-intentioned persons working for her well-being and personal development but also as ritual experts with the capacity to intervene efficiently in the spiritual world. *Orixás* themselves are conceived as trustful and benevolent entities—even if their intentions are not always easily deciphered (Halloy, in press)—who come down to earth both for the joy of their children and to advise and help them. Many witnesses of the Dolphin experience put forward a particular model of relating where trust and benevolence are essential. Witnesses' accounts speak of feeling a mix of bewilderment and enchantment when the dolphin stares back at them as if looking straight into their souls: "when [the dolphin] looked at my personal anxiety, she was looking at me the way I had never been able to look at myself. But I didn't feel afraid: I trusted her." Dolphins could hurt the people, but they don't.[45] To top it all, the animals also have the habit of synchronizing their swimming or their movements with those of their partners. This opens up the way for a form of kinesthetic and emotional attunement that resembles a very intimate, warm, and safe interaction.

A third and central feature of technologies of enchantment is that they lay out a specific sensescape where perceptual and imaginative elements are articulated and assembled in such a way as to create the experiential texture of new embodied meanings. Following Birgit Meyer's statement, what we mean by "embodied meaning" is that it is crucial "not to confine sensation to feeling alone, but to encompass the formation of meaning not as a purely intellectual endeavour, but as enshrined in broader processes of 'sensing' (. . .) The production of meaning always involves bodily experiences and emotions" (2006:39–40).

This sensescape takes in both cases the form of a particular distribution of perceptual saliences in the situation. These perceptual saliences play a crucial role in our framework as they connect the nonordinary bodily experience with the imaginative process initiated during stage 1 of the enchantment process, thus making the expected real. We have so far identified two categories of perceptual saliences able to do the job. On the one hand, we

have perceptual attractors, i.e., perceptual saliences endowed with a great evocative potential and strong emotional resonance (Halloy 2012), and on the other hand, we have social affordances (Kauffman and Clément 2007) whose quality is to trigger feelings coordinated with a particular relational stance.

In the possession episode described above, early signs of possession such as gut feelings, dissociative states, and distorted perception seem to be a direct result of the initiator's firm evocations of the *orixá*, "as if each sound produced by his mouth was instantaneously translated into gut sensations" in the possessed's body. In addition, the presence of blood, and especially its olfactory (and maybe tactile) qualities, during the imaginary "hunt" episode seems to have played a central role not only in triggering emotional reactions but also in allowing the possessed to tap into his unbridled imagination enriched by biographical memories. It is worth noting here that sacrificial blood is a highly evocative substance because blood is considered the main vehicle of *axé*, the vital principle transferred from one body or artifact to the other during sacrifice. But at the same time, blood presents a strong "halo-effect" (Gell 2006[1992]), as it "resists" or "transcends" one's full understanding of what it is and how it exercises its power over its human counterpart.

Perceptual attractors are powerful elicitors of possession due to their highly evocative potential as well as their strong emotional resonance. And when a large variety of perceptual attractors are manipulated at the same time (sacrificial blood + invocation + body posture and motion), as is the case in most rituals where possession is expected and realized, the result is a kind of cognitive and "sensory overload," as Cox says (Gell 1980:233), favorable to the absorption and dissociative states at the heart of many enchantment experiences.

The sensescape produces the same kind of embodied meanings in the context of the Dolphin experience. In order for the dolphin to "talk to me" and for me to understand her, the situation must include a particular distribution of perceptual saliences which connect emotional experiences to evocatory process and the imagination. Some are brought into the situation by the dolphin; others are specific to swimming in the open sea. For clarity, we shall distinguish between social and nonsocial perceptual saliences.

The social perceptual saliences are somehow similar to what animal behaviorists call "releasing stimuli." These are color patterns, postures, or facial expressions displayed by a conspecific that release a specific emotional and behavioral response in the partner (for instance, reassurance or aggression). In our case, we prefer to use the term "social affordances" to point out that facial expressions, although they trigger specific emotional responses, are actually affordances for types of relationships (Bateson 1966). This applies to the famous "smile" [46] of the dolphin: it's enough to see the "smile" of the dolphin, along with the roundness of her head, and you cannot help liking her instantly. The smile is an affordance for friendly interaction. However, what causes the intense emotional response and engages fully the attention is the dolphin's behavior that adds other signals to the unintentional smile. For

when the dolphin approaches the human, she lightly tilts her head to the side and looks the human in the eyes. Now, we know that the gaze, of all the nonverbal signals in our species, is one of the strongest emotional triggers (Cook 1979; Morris, de Bonis, and Dolan 2002). We also know that tilting the head to the side is a signal of reassurance. "The gaze + the smile + the round head + the tilted head" thus appears as a strong configuration of signals that saturate perception and whose overwhelming effect on humans is to make them feel loved and welcomed warmly.

But dolphins are also bearers of nonsocial perceptual saliences. Their smooth bodies, the easiness with which they move, the synchronicity of their swimming and the small number of nonverbal signals (no arms to move around, no hair to stand up, no eyebrows to raise, or no ears to prick) alter the ordinary modes of attention and, instead, bring about a particular attentional state similar to a light trance ("As they reached me, I was struck by their size and blackness, overwhelmed by their skill in the water . . . . The air was alive with activity and love"). As attention and kinesthetic attunement build up, the intimacy of the connection grows deeper. The threads are woven together so that the dolphin can start "to talk" to the novice. In order for enchanted communication to work and the human being to have the feeling that the dolphin talks to *her*, she has to be deeply engaged in the interaction. She has to *see* the dolphin's behaviors as responses to her own behavior. ("I felt he wanted to show me his world . . . He seemed to be saying: Don't worry. I'm with you.")

Other nonsocial perceptual elicitors are specific to swimming in the open sea: being surrounded and immersed in water, weightless with just one point at the horizon (the ship) as the only connection to the human world. Not only the habitual body schema but the entire sensorial and cognitive referential system become obsolete all of a sudden. In this state of confusion of the senses, and the emotional upheaval it might trigger, it is difficult for the novice to understand what is happening to her. Moreover, it is just as difficult to understand that a "regular" dolphin greets a human the way she does and "makes" the human feel all those things. The ordinary paths of interpretation are blocked. The best reaction for the novices then is to give up control and to allow themselves to feel the "non-will," which means, as already mentioned, that the novice's attention is no longer guided by intention but channeled by the sensescape itself: new perceptual elements are articulated and assembled together to create the experiential texture of new embodied meanings. In short, we hypothesize that one of the core processes of enchantment, as we understand it, is the merging of deep feelings with the imagination, and we believe this process is triggered by the "assemblage"[47] of perceptual saliences, allowing the production of "new" embodied meanings pertaining to the category of enchantment.

In the case of possession, perceptual attractors and the potential resulting "sensory overload" will trigger uncanny feelings recognizable as belonging to possession. In the Dolphin experience, social affordances of the Dolphin and the confusion of the senses triggered by the immersion in the open sea might give rise to intense emotional reactions interpreted as the result of direct communication with the Dolphin.

Echoing Alfred Gell (2006), we defend that the experience of enchantment does not happen "merely" through a manipulation of our perception via perceptual saliences. This "manipulation" of perception does occur but it is not enough to induce enchantment. In order for enchantment to happen, there must be at some point a blockage of ordinary interpretations—a cognitive opacity—inducing the releasing of the subject's associative resources (the evocative process) and allowing, in our case, for the creation of new and out-of-the-ordinary embodied meanings associated to the action of spiritual beings.[48] Therefore, paradoxically, it is due to this interpretative opacity that possession or "transparent" communication with the dolphin is likely to occur.

Enchantment as Technology: Some Cultural Variations

Nonetheless, beyond the similarities between the two technologies under scrutiny, there are some differences in the elements and paths leading to enchantment. The first and quite obvious difference concerns the kind of spiritual entities involved in both situations. In the Xangô cult, people are dealing with a "noumenal" spirit, whereas in the Dolphin experience with an actual animal. As a result, we observe a sensory discrepancy between the two situations. In the Dolphin experience, enchantment is first of all the result of an actual interaction between a human and a dolphin, mostly based upon sight and kinesthesia. In the case of the Xangô, by contrast, *orixás* manifest their presence mainly through proprioceptive and emotional changes. Here, possession does not depend on the unfolding of a (real) interaction, but rather on the evolution of specific sensations and emotional reactions triggered by a large variety of stimuli. More specifically, we emphasize the significance of social affordances in triggering the kind of inferences and emotions needed for the Dolphin experience to occur, whereas learning possession depends more directly on configurations of perceptual attractors encountered in all sensory modalities (Halloy 2012).

Another contrast concerns the public *vs.* private contexts of enchantment. Religious possession in the Xangô cult is a public phenomenon, involving many testimonies, while the Dolphin experience happens in the intimacy of the interaction between a dolphin and a human. A direct implication of this difference relates to the learning process and more specifically to the education of attention of novices. Whereas the possessed novices have many opportunities to observe and interact with other possessed individuals and, through "social referencing," are able to focus and refine their view of possession based on the attitudes and behaviors of religious experts towards the possessed, the candidates to the Dolphin experience do not have an opportunity to observe the enchanted encounters. In the case of the latter, perceptual attunement and the education of attention come solely from the evocative process they engage in, through accounts of encounters and from the experience of the encounter itself. Moreover, the adjustment in situ made possible by the observation of the interaction initiator/possessed does not exist in the Dolphin encounter where individuals are on their own. As a result, we believe that in the context of Dolphin experience, it is the imagination rather than observation which works as a unifying or integrative process of experience. In both scenarios, however, the occurrence of a spontaneous experience of enchantment, without any conditioning of the imagination or any education of attention,

remains a possibility and can be accounted for through the evocative and emotional potential of the sensescapes that contain it. Moreover, the idea of a "virgin" imaginary, containing *no* representation whatsoever of dolphins for sea encounters or of possession for individuals "taken" by the *orixás* during visits to Afro-Brazilian temples, is a shared belief rather than a cognitive and social reality of these individuals.

Finally, a third difference concerns the social assessment of the experience of enchantment that, in our view, depends fully on the social contexts in which it occurs. In the Xangô, an initiatory cult *par excellence*, possession is supported by strong community commitment, involving particularly the initiate's fulfilling an entire range of tasks required by the initiators and more senior members of the community. The social context of the Dolphin encounters, on the contrary, is that of communities of experience characterized by weaker connections between members who come to meet ever so often during conferences, organized trips, online, etc. As a result, the semivirtual and "rhizomatic" nature of the Dolphin communities induces a higher degree of rationalization of the experience by the individuals, motivated by their concern with being taken seriously and with capitalizing on their experience within the community but also outside of it.[49] In the Xangô cult, possession is a public phenomenon whose mythological and ontological backgrounds, as well as its psycho-physiological manifestations, are well known to the members of the cult. There is no need for rationalization in order to prove that the experience exists and to define its scope. On the contrary, here experiences of enchantment are subject to stronger institutional control, i.e., the novice is constantly facing social sanctioning.

CONCLUSION

One virtue of our framework is that it tackles issues that encourage a dialogue between cognitive and social sciences. Our framework is not purely culturalist or constructivist—the technologies of enchantment we describe are not just a matter of conventionalization or social learning—nor is it purely cognitivist. The technologies are not just a matter of "prewired" mechanisms or potentially innate dispositions. Rather, our framework belongs to a liminal area where the main thrust is to define, as precisely as possible, the conditions leading to a singular experience. In this particular article, our main interest was to understand how revelation-like experiences happen to people, how people come to have mind-boggling experiences which hijack their ordinary sense of the world and, in most cases, prove to be beyond their control.

Technologies of enchantment cannot, of course, be reduced to religious possession and the Dolphin experience. They come in many shapes and contents, and they are not restricted to the religious and spiritual domains (Marian apparitions, "alien" encounters, meditation techniques, "out-of-body" experiences, Near-Death experiences, etc.), but they can also be found in extreme sports, martial arts, or artistic practices. Modern urban modalities of witchcraft such as penis snatching, killer phone numbers, or deadly alms (Bonhomme 2012) also fit quite well our model as the "dark side" of technologies of enchantment, where the

main differences would lie in their relational quality and emotional valence: malevolence replacing benevolence and negative feelings like fear and hate taking the place of positive ones like trust and love. A wide-reaching comparative ethnography of enchantment would bring to light its pervasive presence in human activities and would enable us to highlight its common traits and cultural variations. Another step for further scientific research might also be to develop experimental settings through which some assumptions made in this article could be tested. Enchantment and its technologies should be taken seriously not only by anthropologists but also by cognitive scientists, leading to fruitful scientific collaborations.

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Notes

1. Oxum is an African deity (*orixá*) worshipped in the Candomblé cults in Brazil, and is the goddess of sweet water, beauty and fertility.

2. Orixalá or Oxalá is another *orixá* worshipped in the Candomblé cults in Brazil, and is an old god, considered the father of all orixás.

3. Bill, a depressed patient, after he met the solitary dolphin Simo off the coast of Wales. Reproduced in Caduceus (1988:4).

4. Yguaraçy, a priest of the Xangô, an Afro-Brazilian cult in Recife (Brazil) is describing his first possession by Oxalá, his second *orixá*. Fragment of an interview recorded by Arnaud Halloy in 2002.

5. All citations from Xangô members are translated from Brazilian Portuguese by the author. Local words and expressions, for which translation is difficult, will appear between brackets.

6. "Technology" is the best translation we found of the French word "dispositif." However, it differs from it in two ways. Firstly, "technology" connotes a human-made and material entity while a "dispositif" connotes the encounter between external (material, social, discursive . . .) and internal (dispositions, intentions, moods . . .) elements. As a result, not all "dispositifs" need to be human crafted and some of them can be largely internalized. Secondly, "technology" loses the Foucauldian idea of a *system of relations*, which connects a series of heterogeneous elements (Agamben 2007:8). In the absence of any English word for "dispositif," we will use the word "technology" as a synonym, echoing Alfred Gell's (2006) expression "technology of enchantment."

7. These associations or people are connected to the New Age world in various ways, which results in a great diversity of the worlds the dolphin encounter refers to. We are not focusing on this diversity here. Instead, we opted to focus on the features that the various dolphin encounters share.

8. Presentation of a one-day workshop around dolphins by a psychotherapist.

9. Kamala Hope-Campbell, co-founder of the ICERC Foundation, introductory talk to the 2nd International Dolphin and whale conference, Nambucca Heads, Australia, May 26, 1990.

10. Kamala Hope-Campbell, introductory talk to the 2nd IDWC, Nambucca Heads, Australia, May 26, 1990

11. http://leva-neve.com/?Nager-avec-les-dauphins, October 26, 2009.

12. *Dolphin*, October 27, 1992.

13. May 27, 1990, Nambucca Heads, Australia

14. *Paris, November 13, 1999.*

15. Sophie Boyer, http://fantastiquephoenix.free.fr/ashtar/dauphin1.htm, January 30, 2011, my translation.

16. Kamala Hope-Campbell, Introductory talk of the 2nd ICERC Conference, Nambucca Heads, Australia, 1990.

17. Brussels, Conference organized by the association Delphus, December 10, 1994.

18. Martha, a dolphin lover and trainer, Cadaqués (1999).

19. Karen Steele, in *Dolphin* (1991:24).

20. Jemina. a former anorexic girl, in *The Australian Dolphin and Whale Journal* (1990, 1:7).

21. Nuweba, Red Sea border, April 1994.

22. *The Australian Dolphin and Whale Journal* (1990,1:36).

23. Sarah Anderson, *The Australian Dolphin and Whale Journal* (1990, 1:7).

24. *The Australian Dolphin and Whale Journal* (1990, 1:19).

25. This is due in part to the fact that our naturalistic framework is at pain explaining or even describing human-animal communication.

26. Most ethnographic data presented in the following sections was collected by A. Halloy in 14 months of research for his Ph.D. that took place between July 2001 and September 2003.

27. The Xangô cult is an initiation-based cult of Yoruba origin where African deities, among other spiritual beings, are worshiped. It originated in Recife in the late nineteenth century where it expanded between the fifties and seventies to become one of the dominant Afro-Brazilian cults of the city.

28. The social structure of the Xangô is based on ritual kinship. The initiates are called "son" and "daughter-of-saint" while the initiators are called "father" and "mother-of-saint." Here "saint" is used as a synonym of *orixá*. Both the initiates and the initiators are believed to be the sons or daughters of their *orixá*(s).

29. The Xangô members understand "birth" in this context as the first full or partial possession of the individual by the *orixá*, not as the result of initiation, as in Bahian Candomblé (Bastide 1958; Elbein dos Santos 1975)

30. The *amasí* is a prophylactic and purifying ritual which involves "cleansing" both the objects making up the *orixá*'s shrine (*assentamento*) and the body of the initiate with a brew—also called *agbó*—made of fresh herbs (the "leaves").

31. The shrine of the *orixá* is usually a large plate made of terracotta, ceramic, or wood on which various objects are laid out, some of which are considered to be the *orixá*'s material instantiation.

32. This emotional learning process called "social referencing" is a topic for intense research in psychology. For a summary and discussion of these researches, see particularly Walker-Andrews (1997).

33. Yansã, the orixá of wind and storm, is the main orixá of Maria-Helena.

34. See also Yguaraçy's self-report in the introduction of this article.

35. The possessed also report certain forms of dissociation (Seligman and Kirmayer 2008), most often seeing one's body act and react to a series of stimuli without being able to control it at all.

36. Ode is the *orixá* of hunt.

37. I carried on this olfactive image for weeks after the possession episode, until I realized it was familiar to me. I remembered a night when my father's pickup truck bumped into a wild animal in the Belgian Ardennes forest, in the south of Belgium. I was around 12 or 14 years old at that time. I don't remember exactly the kind of animal it was, but I have that strong and precise souvenir of its smell, a smell of a drawn animal lying in its blood.

38. As this is most notably the case of *orixás* in other temples or other branches of the cult.

39. Cf. Maria-Helena's self-report.

40. See Halloy (2012) for the description of such an episode.

41. In a nutshell, Deleuze and Guattari (1987) define the "rhizome" as an interconnection of heterogeneous elements, with complexity growing at each new connection.

42. Similar to what Tania Luhrmann suggested in her study on Evangelical Christians learning to discern the presence of God in their everyday lives: "discernment"—she argues—"is clearly a social process, in that there are socially taught rules through which God is identified" (Luhrmann 2007:90).

43. We call "dispositions" the resulting sensibility of personal (innate and acquired) predispositions and the education of attention mentioned before.

44. The following section is based on the seminal work of Emmanuel Belin (2002), a Belgian sociologist who died in dramatic circumstances in January 1998.

45. In animal communication, the only way for an animal to communicate benevolence is to show its strength, and not to harm.

46. "Smile," which, of course, is not a real smile but the shape of the dolphin's rostrum.

47. "Assemblage" is the English translation of the French word "agencement" retained in Brian Massumi's English version of A Thousand Plateaus (Deleuze and Guatarri 1987).

48. For a similar argument in art, see Alfred Gell (1992), and in ritual, see Pierre Smith (1982) and Michael Houseman (2002).

49. The pilgrims to Marian apparition sites as researched by Elisabeth Claverie (1990) share this concern.

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